

IN THE CLAIMS:

Please cancel Claims 15, 16, and 20 to 39 without prejudice or disclaimer of subject matter. Please add new Claims 40 to 55 as shown below. The claims, as pending in the subject application, read as follows:

1 to 39. (Cancelled)

40. (New) An image data processing system comprising:

a photoelectric conversion device comprising a substrate provided with a plurality of photoelectric conversion elements and a light source for radiating light rays having no image data to a plurality of the photoelectric conversion elements;

a radiation source;

control means for independently controlling the radiation source, the light source, and the photoelectric conversion device, wherein the control means drives the radiation source during an image-pickup period and drives the light source during a non-image-pickup period; and

a light guide plate, wherein the light source is arranged on a side face of the light guide plate.

41. (New) The image data processing system according to claim 40, wherein the radiation source is an X-ray source.

42. (New) The image data processing system according to claim 40, wherein the light source is an LED, an EL, a cathode ray tube, or a semiconductor laser.

43. (New) The image data processing system according to claim 40, further comprising an outer casing that houses the photoelectric conversion elements and the light source.

44. (New) The image data processing system according to claim 40, wherein the light source is arranged on a side face of the light guide plate and on an outside of a region where the photoelectric conversion elements are formed.

45. (New) The image data processing system according to claim 40, wherein the photoelectric conversion device further comprises a wavelength converter for converting radiation radiated from the radiation source to light, and

wherein the light source is arranged on a side face of the light guide plate and on an outside of a region where the photoelectric conversion elements are formed.

46. (New) The image data processing system according to claim 40, the light source producing wavelengths including a wavelength region of light absorption of the photoelectric conversion elements.

47. (New) The image data processing system according to claim 40, the photoelectric conversion elements including a first electrode layer and a second electrode layer, an insulating layer formed between the first and second electrode layers for inhibiting a first type of carrier from passing through the insulating layer, a semiconductor layer, and an injection blocking layer for inhibiting said first type of carrier from being injected into the semiconductor layer, and

wherein the light source emits light having a wavelength for generating carriers which absorb light in the semiconductor layer and remain in an interface with the insulating layer.

48. (New) A radiation detection apparatus comprising:
a plurality of photoelectric conversion elements;
a light source for radiating a light ray, whose wavelength includes a wavelength region of light absorption of the photoelectric conversion elements; and
a light guide plate, wherein the light source is arranged on a side face of the light guide plate.

49. (New) The radiation detection apparatus according to claim 48, wherein the photoelectric conversion elements are arranged on an insulating substrate, wherein the insulating substrate is also used as the light guide plate.

50. (New) The radiation detection apparatus according to claim 48, wherein the light source is arranged on a side face of the light guide plate and on an outside of a region where the photoelectric conversion elements are formed.

51. (New) The radiation detection apparatus according to claim 48, further comprising:

a radiation source; and

a wavelength converter for converting radiation radiated from the radiation source to light,

wherein the light source is arranged on a side face of the light guide plate and on an outside of a region where the photoelectric conversion elements are formed.

52. (New) The radiation detection apparatus according to claim 48, wherein the light source is an LED, an EL, a cathode ray tube, or a semiconductor laser.

53. (New) The radiation detection apparatus according to claim 48, further comprising an outer casing that houses the photoelectric conversion elements and the light source.

54. (New) The radiation detection apparatus according to claim 48, wherein the light source produces wavelengths including a wavelength region of light absorption of the photoelectric conversion elements.

55. (New) The radiation detection apparatus according to claim 48, wherein the photoelectric conversion elements include a first electrode layer and a second electrode layer, an insulating layer formed between the first and second electrode layers for inhibiting a first type of carrier from passing through the insulating layer, a semiconductor layer, and an injection blocking layer for inhibiting said first type of carrier from being injected in to the semiconductor layer, and

wherein the light source emits light having a wavelength for generating carriers which absorb light in the semiconductor layer and remain in an interface with the insulating layer.